REMARKS

Claims 1, 4, 10, 12, 20 and 25-29 were pending in the application.
Claims 25 and 27-29 are allowed.
Claims 1, 4, 10, 12, 20 and 26 stand rejected.

The gracious allowance of claims 25 and 27-29 is noted and appreciated by the applicants.

Applicants further appreciate the thorough comments contained in the Final Office Action of June 18, 2003. The Office Action has been carefully considered, and in response thereto the specification has been amended to add a single sentence which also appears in the Abstract of the Disclosure, as originally filed.

The objection to the specification based on alleged new matter and the related rejection of the claims under 35 USC 112, first paragraph, are respectfully traversed and in any event are no longer believed applicable in view of Applicant's amendment to the specification. The Abstract of the Disclosure, as originally filed, recites: "Specifically, the invention provides an improved system to remove CO emissions that has a rapid dynamic response (about 1 second) and can operate over a wide range of temperatures (between 0 and 800 degrees Celsius)." The claim limitations relating to temperature are therefore fully supported by the original disclosure. Since the text quoted above was a part of the original disclosure in the present application, its introduction into the specification at this time cannot be construed as new matter. Accordingly, it is requested that the objection to the specification and the rejection of the claims based on 35 USC 112, first paragraph, be

withdrawn. In all events, it is requested that the proposed amendment be entered for purposes of appeal.

Claim 26 has been amended to conform with the original disclosure of a temperature range of 0 to 800 degree Celsius.

Applicant also traverses the Examiner's contention that the term "rapid dynamic response" is not defined in the claim and that the specification does not provide an adequate standard for ascertaining its meaning. Attention is directed to the specification, page 14, lines 20-22, where it is stated that: "The reactor for applying this electrochemical promotion technique should be capable of rapid response (in the one-second range)." Furthermore, the Abstract likewise specifically recites the rapid dynamic response as being "about 1 second." It is hard to understand how the disclosure could be more specific in providing a standard for determining what is meant by "rapid response time" in the context of the present invention. Accordingly, reconsideration of the Examiner's objection to the specification and the rejection of Claim 1 on this basis is requested.

The continued rejection of the claims primarily based on the Vayenaas and Yentekakis are believed to be without sufficient foundation. None of the art of record teach the rapid response time (1 second) or temperature ranges claimed by Applicant. The mention of a temperature range of 0 to 850 degrees C on page 10 of Applicant's specification refers to the entire range of experiments that have generally been performed in the field of

electrochemical promotion and do not specifically pertain to the removal of CO from hydrogen. Applicant was the first to discover that a range of 0 to 800 degree C was surprising effective in promoting the removing CO. Accordingly, Applicant's general description of the prior art does not in fact disclosure the critical temperature range, and the rejection of the claims based on Applicant's description of the prior art should therefore be with drawn.

The art of record, even if combined, does not fairly teach the claimed limitations relating to response time and temperature ranges, which have been found to be critical in rendering the CO removal system practical for vehicular applications using hydrogen as a fuel. Reconsideration of the rejections is therefore requested.

Respectfully submitted,

Randy W. Tung (31,311)